

Response to Amendment

Claims 26-44 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 26-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Hand et al. U.S. Patent No: 7,111,304 B2.

As per claims 26 and 36, Hand discloses:

- ***A system for remotely supporting a family of products even when the products are deployed in the field, the system comprising:***

- *at least one respective unit (110) of a first product of the family of products,* (Hand, Fig. 1, Ref. 6a-6b) where two separate devices are shown that are the products as claimed;
- *an interchangeable device model (122, 123) for the first product selected from a family of device models wherein each member of the family of device models includes at least identifications of classes of information that can be communicated to and/or from the each of the products of the family of products and mappings indicating how the classes of information can be communicated to and/or from the first product,* (Hand, Col. 4, Lines 31-40) where the device specific modules 12a and 12b are the interchangeable device models as claimed. The agents 10a and 10b instantiate classes implemented by device specific modules 12a and 12b and call methods from such classes to access data from the devices. The device specific modules implement classes (device Communication classes) in device specific code that utilize device specific application programming Interface (API) in order to access information from the managed resources 6a and 6b. The device specific modules 12a and 12b provide the mapping or translation of the device communication classes and device specific APIs (Hand, Col. 5, Lines 18-21);
- *at least one respective device model agent (120)* [(Hand, Fig. 1, Ref. 10a-10n) where the Common Information Model (CIM) provider is the respective

device model agent as claimed] *that is operative to read the interchangeable device model and access information in the at least one respective unit* [(Hand, Col. 4, Lines 31-40) where the CIM provider calls methods from classes to access data from the devices] *and to provide information to the at least one respective unit according to the interchangeable device model* [(Hand, Col. 4, Lines 4-7) where the CIM providers obtain the requested device specific information or perform the device related operations and return any obtained information to the CIMOM to return to the client] *and to communicate with at least one other element of the system regarding the at least one unit over at least one communications link according to terms, parameters, structures or protocols that are common to products of the family of products* [(Hand, Col. 3, Lines 60-64) where the transport mechanism such as TCP and application protocol such as HTTP are used to communicate with the CIM clients for information on devices], *regarding at least one of unit configuration parameters, unit status information, available upgrade information, selected upgrade information, selected downgrade information, available update information, requested update information, an error message, and service request information,* [(Hand, Col. 6, Lines 8-16 and 18-25) where the different information regarding the devices and the services such as providing the status change information for all instances of particular device types is described];

- *a services host server (310) that is operative to exchange information with the at least one respective device model agent over the at least one communications link [(Hand, Fig. 1, Ref. 2)] where the Common Information Model Object Manager (CIMOM) is can be the services host server as claimed], the exchanged information including at least one of: the unit configuration parameters, the unit status information, the available upgrade information, the selected the upgrade information, the selected downgrade information, the available update information, the requested update information, the error message, and the service request information, [(Hand, Col. 6, Lines 8-16 and 18-25) where the different information regarding the devices and the services such as providing the status change information for all instances of particular device types is described];*

As per claims 27 and 37, claims 26 and 36 are incorporated and further Hand discloses:

- *at least one respective second unit (110) of a second product of the family of products, (Hand, Fig. 1, Ref. 6a-6b) where two separate devices are shown that are the products as claimed;*
- *a second interchangeable device model (122) for the second product selected from the family of device models wherein the second interchangeable device model includes mappings indicating how the*

classes of information can be communicated to and/or from the second product, (Hand, Col. 4, Lines 31-40) where the device specific modules 12a and 12b are the interchangeable device models as claimed. The agents 10a and 10b instantiate classes implemented by device specific modules 12a and 12b and call methods from such classes to access data from the devices. The device specific modules implement classes (device Communication classes) in device specific code that utilize device specific application programming Interface (API) in order to access information from the managed resources 6a and 6b. The device specific modules 12a and 12b provide the mapping or translation of the device communication classes and device specific APIs (Hand, Col. 5, Lines 18-21);

- *at least one respective copy of the device model agent (120)* [(Hand, Fig. 1, Ref. 10a-10n) where the Common Information Model (CIM) provider is the respective device model agent as claimed] *that is operative to read the second interchangeable device model and access information in the at least one second respective unit of the second product* [(Hand, Col. 4, Lines 31-40) where the CIM provider calls methods from classes to access data from the devices] *and to provide information to the at least one respective unit of a second product according to the second interchangeable device model* [(Hand, Col. 4, Lines 4-7) where the CIM providers obtain the requested device specific information or perform the

device related operations and return any obtained information to the CIMOM to return to the client] *and to communicate with the services host regarding the at least one unit over at least one communications link according to the terms, parameters, structures or protocols that are common to products of the family of products* [(Hand, Col. 3, Lines 60-64) where the transport mechanism such as TCP and application protocol such as HTTP are used to communicate with the CIM clients for information on devices], *regarding at least one of second unit configuration parameters, second unit status information, available second unit upgrade information, selected second unit upgrade information, selected second unit downgrade information, available second unit update information, requested second unit update information, an error message regarding the second unit, and service request information regarding the second unit*, [(Hand, Col. 6, Lines 8-16 and 18-25) where the different information regarding the devices and the services such as providing the status change information for all instances of particular device types is described];

As per claims 28 and 38, claims 26 and 36 are incorporated and further Hand discloses:

- *at least one services provider (300) that is operative to exchange information with the services host server over at least one communications link and to provide at least one of: updated software,*

software upgrades, billing services, maintenance services and repair services for the at least one unit according to at least one of: the unit status information, the selected upgrade information, the requested update information, the error message and the service request information received from the at least one unit, [(Hand, Col. 6, Lines 8-16 and 18-25) where the different information regarding the devices and the services such as providing the status change information for all instances of particular device types is described];

As per claims 29 and 39, claim 26 and 36 are incorporated and further Hand discloses:

- *the at least one respective device model agent is at least one of: implemented as a process included in the at least one respective unit and implemented within a physical add-on module (115) that is connected to the respective at least one unit,* (Hand, Col. 4, Lines 65-68) where the CIM providers may be implemented on different computing devices or executed on the same computing device.

As per claims 30 and 40, claims 26 and 36 are incorporated and further Hand discloses:

- *an application server (200, 310, 320) that is operative to receive application software modules from at least one services provider and make the software application modules available for transmission to and*

installation in the at least one respective device model agent for performing new services in conjunction with the at least one respective unit, (Hand, Fig. 1, Ref. 2 and Col. 4, Lines 1-7) where the CIMOM processes the requests from the clients and then interfaces with the CIM providers where the providers in turn obtain the requested device specific information or perform the device related operations and return any obtained information to the CIMOM to return to the clients.

As per claims 31 and 41, claims 26 and 36 are incorporated and Hand further discloses:

- *at least one of the at least one respective device model agent is at least one of: implemented as a device proxy (210) and implemented in a device proxy within in the applications server, (Hand, Col. 10, Lines 44-47) where the CIM providers are the proxy providers and implement the DevComm classes.*

As per claims 32 and 42, claims 30 and 40 are incorporated and further Hand discloses:

- *at least on of: the respective at least one unit, the services host server and the application server further comprise: an application programming interface (130, 230, 330) that is operative to determine which means of communications are available to the application programming interface, to select one or more communication means from the available communications means for communicating with at*

least one other system element, and to communicate with the at least one other system element according to one or more protocol that is appropriate to the one or more selected communications means, (Hand, Col. 5, Lines 14-18) where the vendors may code device specific APIs which include methods having device specific commands to query the devices for information. The methods can include the methods or means of communicating with the devices.

As per claims 33 and 43, claim 32 and 42 are incorporated and further Hand discloses:

- *the application programming interface supports communication via at least HTTP, HTTPS, JMS, email, 10BaseT, 100BaseT, 10Base2, Modem, IEEE 802.11X, and Bluetooth, protocols,* (Hand, Col. 3, Lines 60-64).

As per claims 34 and 44, claim 26 and 36 are incorporated and further Hand discloses:

- *the device model agent is further operative to at least one of: add a new service received from an applications server to the device model agent, start a service running and stop a service,* (Hand, Col. 1, Lines 60-64) where the stopping and starting of service or addition of resources to a monitored device are described.

As per claim 35, claim 26 is incorporated and further Hand discloses:

- *the at least one respective unit comprises: an image processing device,*
(Hand, Col. 5, Lines 1-5).

Response to Arguments

Regarding the independent claims 26 and 36:

Applicants argue that Hand does not disclose identification or classes of information as recited in the independent claims 26 and 36. The examiner respectfully submits that Hand disclose that the agents instantiate classes implemented by device specific modules and call methods from each classes to access data from the devices. However in the application there is no indication of what specific type of information or classes of information is claimed. Therefore, by applying the broadest reasonable interpretation, the examiner respectfully submits that Hand does disclose classes of information as required by the independent claims.

Also applicants argue that Hand does not disclose that the model includes mappings indicating how the classes of information can be communicated to or from the first product. The examiner however, respectfully submits that Hand discloses that Hand clearly discloses (Hand, 5:18-21) that device specific modules provide the mapping or translation of the device communication classes and the device specific APIs. In other words the device specific modules provide necessary information and/or instruction indicating how to communicate with each device in the network.

Furthermore, the applicants argue that Hand's calling the methods from the classes does not disclose reading an interchangeable device model or that at least one respective

device model agent is operative to read an interchangeable device model. The examiner however respectfully disagrees and submits that Hand discloses that the methods of classes are called in order to access data from the devices. (Hand, 4:31-40) Accessing information or data from other devices simply means reading the information about that device which it can include reading the device model.

Regarding the argument that Hand does not disclose that a device model agent provides information to a unit according to an interchangeable device model that is read by the device model, the examiner respectfully submits that Hand discloses the CIM providers obtain the requested device specific information or perform the device related operations and return any obtained information to the CIMOM to return to the CIM client (Hand, 4:4-7). Therefore, the requested information is obtained and provided to the appropriate device. Even though this citation is not word to word the same as the claim language and limitations (although not necessary), it would be appreciated by one of the ordinary skilled in the art that Hand discloses the necessary operation to provide information to another unit according to specific information obtained from each device.

Applicants argue that CIMOM 2 of Hand is not operative to exchange information with at least one respective device model agent over the at least one communication link. The examiner respectfully submits that as shown in figure and disclosure the CIMOM 2 is said to implement a transport mechanism such as TCP and application protocol such as HTTP to communicate with the Common Information Model (CIM) clients where the clients may utilize an HTML browser for communication, encoding and decoding of messages, dispatching of messages to providers and a CIM repository and an aggregation of results from multiple CIM

providers to return in a single response such as single HTML page, to the requesting client (Hand, 3:59-67~68). Therefore, as discussed in the rejection the CIMOM can be the services host server that is operative to exchange information with at least one respective device model agent over the at least one communications link. The information regarding the status change information for all instances of particular device type and information regarding status change information for any device are provided as disclosed by Hand (Hand, 6:8-25).

Regarding the dependent claims 27 and 37:

Applicants argue that Hand does not disclose a copy of the device model agent. However the examiner believes that the CIM providers 10a-10b are configured to perform similar tasks and are adapted to perform same functions therefore one easily can replace the other (Hand, Fig. 1, Ref. 10a-10b).

Regarding the dependent claims 28 and 38:

Applicants argue that Hand does not disclose a service provider operative to provide at least one of updated software, software updates, billing services, maintenance services and repair services. However the examiner respectfully submits that Hand discloses that the PropertyChangeListener class is used to provide status change information where the status change can comprise updating the information on the device (Hand, 6:8-25). Furthermore, examiner respectfully submits that providing services such as updating or upgrading software, providing billing services, etc. by the service provider are well known in the art and cannot be considered as an inventive concept. As mentioned above, the PropertyChangeListener is used to

provide information such as status change information therefore it is capable of exchanging information as argued.

Regarding the dependent claims 29 and 39:

Applicants argue that Hand does not disclose that the CIM providers are included in the devices 6a and 6b or within a physical add-on module that is connected to the respective device 6a and 6b. However the examiner respectfully disagrees and submits that as disclosed in Col. 4, Lines 65-67 the CIM clients and CIM providers may be implemented on different computing devices or executed on the same computer device. This clearly shows that the CIM provider can be anywhere on any computing device including the devices 6a and 6b of Hand.

Regarding the dependent claims 30 and 40:

Applicants argue that Hand does not disclose an application server that is operative to receive application software modules. However, the examiner disagrees and submits that the CIM provider of Hand can be the application server that can obtain or receive the requested device specific information or perform the device related operations and return any obtained information to the CIMOM 2 to return to the CIM client (Hand, 4:1-7). Since the requested device specific information can be obtained or received by the CIM provider, therefore clearly any type of information can be obtained (therefore transmitted) to or from the CIM provider. The fact that the application server is being operative to make software application module available for transmission to and install on a respective device model agent is known in the art and is not being considered as an inventive concept.

Regarding the dependent claims 32 and 42:

Regarding the applicants' argument that Hand does not disclose that an application programming interface is operative to determine which means of communications are available to the application programming interface, to select one or more communication means, the examiner respectfully submits that Hand discloses that the vendors may code specific APIs which include methods having device specific commands. The device specific commands can clearly include commands and information regarding how the communication is to take place and how and which type of communication means is available in the system in order to be able to communicate with the device. This is specifically true since devices in a specific network might have different specification and different ways and means of communication.

Regarding the dependent claims 33 and 43:

Applicants further argue that Hand does not disclose that application programming interface supports communication via at least HTTP, HTTPS, JMS, email, 10BaseT, etc. However, the examiner respectfully submits that Hand does show a transport mechanism such as TCP and an application protocol such as HTTP to communicate with CIM clients.

Regarding the dependent claims 34 and 44:

Regarding the applicants' argument that Hand disclosure of recitation of claims 34 and 44 are in the background section of the reference, the examiner respectfully submits that even though the concept is well known in the art and is not considered as an inventive concept,

however this cited portion of Hand's specification clearly shows that it would be obvious to one of the ordinary skilled in the art to be able to have capability of addition of new service to the existing services.

Regarding the dependent claim 35:

Finally applicants argue that Hand does not disclose an image processing device. The examiner respectfully disagrees and submits that any device that have the capability of displaying an image and/or process the image to be displays can be considered as an image processing device.

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARVIN ESKANDARNIA whose telephone number is (571)270-3205. The examiner can normally be reached on Monday - Thursday, 8:00AM-6:00PM (EST),.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Krista Zele can be reached on (571)272-7288. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Date: October 28, 2011